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# International experiences of tax simplification and distinguishing between necessary and unnecessary complexity

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# International experiences of tax simplification and distinguishing between necessary and unnecessary complexity

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## **Abstract**

Calls for the simplification of taxation are frequently heard but attempts to achieve actual tax simplification have rarely met with much lasting success. To investigate further, the present authors asked relevant experts to report on the experience of tax simplification in Australia, Canada, China, Malaysia, New Zealand, Russia, South Africa, Thailand, Turkey the UK and the USA. In addition to tax simplification in general, the country experts were asked to provide information on simplification in relation to the following aspects: tax systems, tax law, taxpayer communications, tax administration and any more fundamental approaches. Their accounts were published in a book edited by the current authors early in 2016. This paper analyses the experiences of the 11 countries and it is clear that a considerable degree of complexity is inevitable given the different aims of taxation and the complex socioeconomic environments in which tax systems have to operate. The key question is how to distinguish complexity which is necessary for the functioning of a successful tax system from that which is not. This paper focuses on the relevant factors and issues involved in classifying unavoidable and unnecessary complexity not only with respect to legislation but also tax policy and administrative systems.

## **1. Introduction**

The Times (2016, p. 26) pointed out that the Ten Commandments uses fewer than 200 words, the American Declaration of Independence 1,300 and Magna Carta consists of around 4,000 words. In contrast the British tax code, which the Times suggests is nothing like as enlightening, has been estimated to contain 10 million words stretching over 17,000 pages. This is a type of comparison often made and the implication is that tax systems should simply be made simpler. However, tax simplification is not a straightforward process as many governments embarking on such a policy have discovered. The academic analysis of tax simplification and how to achieve it has been the subject of an increasing amount of attention. An early contribution by Bachrach (1945) appearing in *The Accounting Review* considered that the results of tax simplification 'will largely be measured by the number of pages

remaining in the Code', p.103). As soon becomes clear, success in simplification is rather more difficult to measure. In subsequent years there have been considerable developments in understanding the meaning and wider implications of tax simplification, for example Cooper (1993) and Tran-Nam (1999) and how to measure it, for instance Tran-Nam and Evans (2014) and the Office of Tax Simplification (OTS) (Jones et al., 2014; Whiting et al., 2015).

There are many reasons why modern tax systems become complex, not least because they are now so large and pervasive they have to take account of the complex and changing socioeconomic environment in which they have to operate as indicated, for example, by James and Edwards (2008). A useful contribution to this topic therefore has to go beyond simply counting the number of words or pages in tax legislation.

This paper begins in section 2 by presenting the findings of a survey of 11 countries regarding tax simplification. They provide further evidence that complexity and tax simplification are difficult issues and there are powerful pressures which tend to increase the complexity of tax systems. This raises the question of distinguishing between necessary and unnecessary complexity. Ulph (2013) approached the issue by suggesting that some complexity is 'fundamental'. The real aim in trying to measure complexity might not be to measure overall complexity but to measure the extent to which taxation is unnecessarily complex. This also may not be as simple as it sounds since dividing complexity into that which is 'necessary' and that which is not depends on the many competing factors in tax design and reform – the aims of policy, the interactions between different policies, trade-offs between efficiency and equity and so on. To provide a framework to consider these matters, section 3 adapts a strategic approach to tax design and reform. The purpose of this approach is to incorporate the range of pressures and constraints on a tax system in a process aimed at identifying unnecessary complexity. Section 4 examines the use of complexity indexes, such as the index developed by the OTS. It considers their possible use, not only in measuring complexity, but also unnecessary complexity. Section 5 sets out our concluding observations.

## **2. Survey of tax simplification in 11 countries**

Following an earlier paper by James et al. (2015), the present authors decided to undertake a much wider study of tax simplification in a range of different countries. Given the importance of the topic, agreement was reached with Palgrave Macmillan to publish a book on contributions on simplification from around the world. This was duly published (James et al. 2016) and this paper analyses the findings. The first stage of this study was to identify experts on the tax systems of particular countries who also had knowledge of issues involving complexity and simplification they would be willing to share. This was not always an easy process but eventually an authoritative group of experts was established who were willing to report on the tax simplification experiences in particular countries and they are listed in Table 1.

**Table 1: Country Simplification Contributors**

<b>County</b>	<b>Contributor(s)</b>
Australia	Binh Tran-Nam, University of New South Wales
Canada	François Vaillancourt, University of Montreal and Richard Bird, University of Toronto
China	Nolan Cormac Sharkey, University of Western Australia
Malaysia	Veerinderjeet Singh, Chairman, Taxand Malaysia and Adjunct Professor, Monash University Malaysia
New Zealand	Adrian Sawyer, University of Canterbury, New Zealand
Russia	Alexander I. Pogorletskiy, Elena V. Kilinkarova and Nadezhda N. Bashkirova, Saint Petersburg State University
South Africa	Theuns Steyn and Madeleine Stiglingh, University of Pretoria
Thailand	Thamrongsak Svetalekth, Kasetsart University
Turkey	Tamer Budak and Serkan Benk, Inonu University
UK	Simon James, University of Exeter
USA	Hughlene Burton, University of North Carolina Charlotte and Stewart Karlinsky, Emeritus Professor, San Jose State University

The contributors were sent a pre-publication version of the James et al. (2015) paper as a guide to the matters under investigation and asked to include, if it were appropriate, relevant information on the following aspects.

- Simplification of tax systems
- Simplifying tax law
- Simplifying taxpayer communications
- Simplifying tax administration
- Longer term or more fundamental approaches to simplification

Almost all of the 11 contributions included significant examples of all five aspects, which are useful themes in examining different dimensions of simplification. However, even within this fairly specific framework, the expert contributions often varied considerably in the attention they gave to different issues and the actual experiences they examined. This is not surprising of course, not least because the political and socioeconomic environment within which tax systems have to operate often vary considerably between different countries. For instance, Sharkey (2016, p.

45) pointed out that the simplification of income tax in China is significantly different from most of the other countries represented in this study, essentially because the 'tax institution environment' is different. Nevertheless, the contributions also demonstrated that each country has significant challenges with tax complexity, tried different way to simplify taxation and achieved different degrees of success. The diversity of the experiences of these countries means a case study approach is the most appropriate method of analysis and perhaps the best way is to examine the experiences of the different countries is by the aspects listed above, starting with the simplification of tax systems.

## **2.1 The Simplification of Tax Systems**

Calls for tax simplification often focus on the tax system itself – the number of taxes, the tax bases, the exemptions and the structure of tax rates. However, the contributions from the 11 countries suggest that major simplification of tax systems is relatively rare. Some countries such as the United States (US) have proposed simplification of this sort but without much success. Others have made substantial improvements, for example, the legislative package introduced in Turkey in 2004 which simplified the taxation of personal income and corporate earnings (Budak and Benk, 2016, p. 212). Other countries such as Canada have abolished some taxes but seen complexity increase elsewhere in the tax system (Vaillancourt and Bird, 2016). One major advance in terms of simplification is the introduction of a flat tax in Russia. The flat tax – an idea developed by Hall and Rabushka (1983 and 2007) - involves a single rate of tax. It has been examined, for example, by Keen, et al. (2008) and much discussed in the US and many other countries but without them actually going as far as introducing one. However, such a tax has been introduced in Russia. The Russian contributors (Pogorletskiy et al., 2016) reported on its success since it was introduced from 2000 onwards when one basic rate of income tax of 13 percent on individual residents of the Russian Federation replaced five rates ranging from 12 percent to 35 percent. Some countries of Central and Eastern Europe have followed the Russian example, in particular Belarus, Bulgaria, Hungary, Latvia and the Czech Republic.

## **2.2 Simplifying Tax Law**

In some countries, notably Australia, New Zealand (NZ) and the United Kingdom (UK), there have been attempts to simplify tax law without simultaneously simplifying the tax system itself. It seems fair to conclude that simplifying taxation by re-writing the tax law alone has had limited success. The Australian contributor described the Tax Law Improvement Project (TLIP) set up to simplify tax law by rewriting and restructuring the Income Tax Assessment Act 1936. The rewritten legislation was incorporated in the Income Tax Assessment Act 1997 which was intended to replace the 1936 Act. However, before the 1997 Act was completed the TLIP was brought to an end with the result that income tax in Australia is governed by two parallel pieces of legislation in the form of the 1936 and 1997 Acts (Tran-Nam, 2016, p. 28). New Zealand has been one of the most prominent countries

in rewriting and reorganising its income tax legislation and there is evidence that the NZ Rewrite Project led to improvements in readability and to a lesser extent improvements in understandability. Nevertheless, rewriting and reorganising tax law is 'in itself no guarantee that the resulting text will be understandable when it is assessed using various forms of readability testing' (Sawyer, 2016, p. 119). In the UK the Tax Law Review Committee (TLRC) was set up in 1994 and suggested that tax legislation could be written in plain language. This approach was adopted by the UK Government in 1995 and the Tax Law Rewrite (TLR) project was established in 1996 to rewrite primary legislation but without changing the law. The original intention was ambitious – to rewrite most of the primary legislation on income tax, corporation tax, capital gains tax, inheritance tax, petroleum revenue tax and stamp duties. As in Australia and NZ there was some success in simplification but it was decided to end the project. The Financial Secretary to the Treasury stated in a written report:

Since it was set up, the [TLR] project has played a key role in modernising tax legislation and making it far more accessible and easier to apply. Its work has rightly been widely praised, and has provided considerable benefits for users. However the benefits of rewriting other parts of the direct tax code are less clear and there is less support for extending the work of the project into these areas. I am satisfied that when the project's next two Bills are enacted, the time will be right to bring this work to an end (Hansard HC, 16 July 2009).

In Australia, NZ and the UK some improvements were achieved but they were limited because they only tackled the complexity of tax legislation without paying proper attention to the full range of reasons why tax systems become complex (James, 2016, p. 236).

### **2.3 Simplifying taxpayer communications**

Many examples of initiatives to improve taxpayer communications are reported, often involving the use of technology going well beyond the maintenance of comprehensive websites containing information designed for taxpayers. In NZ, there has been particularly focus on developing the Inland Revenue Department's (IRD's) website with the aim that it should become the principal means of interacting with taxpayers and there is a policy of making communications clearer. There are also plans for ambitious technological developments such as a 'high-tech digital infrastructure' in Russia and new digital tax accounts in the UK. Some countries, for example Thailand, use social media to communicate with taxpayers (Svetalekth, 2016, p. 201).

Developments in taxpayer communications, as in other areas, are a reminder that taxation reflects circumstances and trends in society more generally. For instance, in the US legislation has been passed to 'improve the effectiveness and accountability of Federal Agencies to the public by promoting clear Government communication that the public can understand and use' (quoted by Burton and Karlinsky, 2016, p. 260). This legislation covers all executive branches of government including, of course, the Treasury Department and the Internal Revenue Service (IRS). In South Africa, there

have been a range of initiatives to simplify taxpayer communications including a ‘filing season’ campaign of high interaction between the government and taxpayers, and both permanent and mobile branches as well as online help services (Steyn and Stiglingh, 2016, pp. 168-170).

## **2.4 Simplifying tax administration**

There have been some major achievements in simplifying tax administration – both in terms of limiting the numbers of tax returns issued in some countries and also in ‘pre-populating’ (pre-filing) tax returns that are sent out. In the UK most taxpayers have not been required to complete an annual tax return since the introduction of the cumulative Pay-As-You-Earn system in 1944 which, at least in principle, withholds tax accurately from employment and some other incomes. New Zealand has also moved in this direction removing the requirement of individual taxpayers to submit annual returns. This is possible where their income is taxed at source, the relevant information is received from third parties and employee deductions are eliminated. Malaysia has also made a change in this respect so that employees with specified straightforward circumstances are no longer required to file tax returns (Singh, 2016).

Improvements in information and communication technology have encouraged two particular developments. One is the electronic filing of tax returns, which is now widespread, though it cannot be said this always promotes simplification. The other is the practice of pre-filing tax returns. Tax authorities have long received information from third parties about taxpayers’ circumstances but it is now possible to transfer this information electronically directly to individuals’ tax returns. Denmark was one of the first to introduce such arrangements in 1988 followed by other Scandinavian countries. In the countries examined in this study moves in this direction are reported from several including Australia, Malaysia and Turkey. However there is enormous scope for such an arrangement to be extended. Pre-filled returns may contain details of most sources of income together with tax withheld as well as certain deductions. The taxpayer is then required to confirm that the information already included in the return is correct or amend it and provide any other information that is required.

## **2.5 Longer term or more fundamental approaches to simplification**

As concerns about complexity may be raised throughout the different dimensions of tax systems, tax law, taxpayer communications and tax administration, overall improvements are only likely to be achieved with lasting effect through longer term or more fundamental approaches to simplification. These are rare. Indeed, it is a reminder that tax simplification is only one aspect of tax policy that it is usually, at best, only a modest part of tax reform initiatives. One initiative that has been widely reported was the establishment of the UK’s OTS in 2010. It has produced a range of reports on specific simplification topics and many of its recommendations have been accepted by the UK Government. It has also developed a very useful tax complexity index which is examined further in section 4 below. The work of the OTS has illustrated how complex the UK tax system is and that simplification is both a

massive and ongoing challenge. While the changes the OTS has achieved are valuable, they are relatively minor and do not form a major simplification of the tax system as a whole and it is difficult to see how they could without a more fundamental approach to tax simplification (James, 2016, p. 242). In NZ a series of reforms over thirty years seem to have made real and substantial progress up to the last major reform following the report of the Tax Working Group (TWG) in 2010, although the contributor acknowledges that it is easier to achieve change when the size and scale of the economy and tax system are small (Sawyer, 2016, p. 126).

Although the reports of tax simplification from the 11 countries in the study include many examples of successful initiatives, almost all of them are confined to particular aspects of the tax system and relatively few make a major impact on the tax system as a whole. It may therefore be helpful to consider a strategic approach to simplification and how it might assist in identifying unnecessary complexity.

### **3. A strategic approach to identifying unnecessary complexity**

#### **3.1 Overview**

It has been suggested before that a strategic rather than a piecemeal approach is necessary if a policy of simplifying taxation is to succeed (James and Wallschutzky, 1997). The benefits of a more strategic approach to taxation have also been examined with respect to tax compliance (James, 2005), tax administration (James et al. 2006), particular taxes such as income tax (James and Edwards, 2007) and to tax reform generally (James and Edwards, 2008).

The advantages of such an approach include taking account of the full range of relevant factors so the appropriate level of complexity might be seen in the light of all the other considerations and trade-offs. This approach may therefore be used to identify unnecessary complexity. Ulph (2013; 2015a; 2015b) distinguished between design complexity and operational complexity. Design complexity covers the tax base and the structure of tax rates and these should be linked to the aims of taxation including raising revenue while promoting economic efficiency and fairness. Operational complexity covers how easy or costly it is for honest taxpayers to comply with the obligations of the tax system. A strategic approach incorporates such considerations but takes them further in an overall assessment of taxation and the degree of complexity that may be required in a wider context. The academic discipline of management is the subject area which has focused most on developing strategy including, for example, the work of Grant (2015) and Mintzberg (2004). James and Edwards (2008) drew on the relevant strategy literature to develop a strategic approach to issues of taxation in the form of ten distinct stages adapted for the current purpose as follows:

1. Identify the aims of taxation
2. Consider different methods of achieving the aims
3. Analyse in terms of economic criteria.

4. Examine administrative constraints and considerations
5. Identify different risks regarding unnecessary complexity
6. Analyse behaviour
7. Consider the relationship between different policies
8. Develop strategies
9. Plan and implement strategies including intended outcomes
10. Monitor and evaluate the performance of the strategies against the plan

These stages will be considered in turn. At each of these stages questions can be raised regarding the extent of complexity that may be necessary.

### **3.2 Identify the aims of taxation**

Taxation is used to support a range of government policies in addition to raising revenue to support public expenditure. It is used to redistribute income as well as encouraging some activities and discouraging others. Identifying the aims of taxation is not, of course, sufficient to distinguish necessary from unnecessary tax complexity but it should be the starting point to examine whether the level of complexity is proportionate given the aims of taxation.

### **3.3 Consider different methods of achieving the aims**

Taxation may not necessarily be the best way of achieving all the aims identified above. For example, tax expenditure describes the use of tax concessions to give a fiscal advantage to a particular activity or group of individuals rather than the more direct use of public expenditure (Surrey, 1973). If tax expenditures are being used as part of a policy of redistributing income their effectiveness will be seriously limited because, of course, the benefits to individuals will normally be determined by their marginal tax rate. Those with the highest taxable incomes benefit the most and non-taxpayers do not benefit at all. Tax expenditures may be a major cause of complexity. They may also provide perverse incentives to taxpayers for whom they were not intended. Therefore different methods, or combination of methods, which may be used to achieve the policy aims set should be assessed in terms of the relevant criteria, including the degree of necessary complexity necessarily involved.

### **3.4 Analyse in terms of economic criteria**

The most important economic criteria that may be used to analyse taxation are efficiency and equity. These are laid out in much greater detail elsewhere (for example, in James and Nobes, 2015) but their relevance to the assessment of complexity can be introduced here. The efficiency criterion relates to how a tax might affect the efficiency of the economy through effects on the allocation of resources and the extent and nature of administrative and compliance costs. A tax may be examined

for excessive levels of complexity with respect to each of these aspects, particularly administration and compliance.

Equity issues are important because taxes not considered fair by taxpayers are much more difficult, and sometimes impossible, to operate successfully. The simplest direct tax is one that is levied at the same amount for everyone and so avoids the complexity of establishing individuals' circumstances. However such taxes, if imposed at significant levels, are unlikely to succeed. This was demonstrated beyond all doubt by the UK's community charge quickly dubbed the 'poll tax' introduced in Scotland in 1989 and England and Wales in 1990 to replace a local domestic property tax. Although it scored well on all the usual criteria for a local tax (James, 2012) the fact that for most individuals it took no account of their circumstances aroused massive opposition including public demonstrations, a major riot in London and widespread non-payment (Smith, 1991 and Butler et al. 1994). It was also a factor in the subsequent fall of Margaret Thatcher as Prime Minister (Gibson, 1990) and it was replaced by the less inequitable council tax. Assessing the fairness of a particular tax is difficult but there are some useful concepts. One is horizontal equity which holds that individuals in the same circumstances should pay the same in taxation which, of course, introduces the complexity of establishing those circumstances. Similarly the ability to pay approach usually involves establishing a person's income.

As Vickrey (1969, p. 736) suggested, complexity in the relevant legislation and administration comes largely from the requirement to answer four types of questions:

1. Is it income?
2. Whose income is it?
3. What kind of income is it?
4. When is it income?

This gives a more precise indication of key areas where the extent of necessary and unnecessary complexity might be identified. With indirect taxes such as GST/VAT similar considerations arise when the taxes do not cover all goods and services and complexity is generated to determine which are subject to tax and which are zero-rated or exempt.

### **3.5 Examine administrative constraints and considerations**

Although there is an enormous academic literature on taxation and tax reform, Bird (1998, p. 183) has suggested there is not much evidence that tax administration has been given sufficient attention. Neither has there been much more since Bird made that comment, although there has been an important contribution by Aaron and Slemrod (2004) which related tax administration to a range of important matters including tax simplification. Even if tax administration is not much discussed, its importance is acknowledged, for example during the course of the Mirrlees Review

(2010) by Shaw et al. (2010, p. 1158) who stated: “administration and enforcement are often neglected in tax policy, but they are central to making a tax system work”. Indeed, issues of tax administration may be crucial in determining the success or otherwise of many aspects of taxation including simplification. Administrative complexity should be included in the above considerations of the aims of taxation, different methods of achieving those aims and the relevant economic criteria. It has been suggested that tax administration might not always be best left to tax administrators (for example, see Devas, et al., 2001).

### **3.6 Identify different risks regarding unnecessary complexity**

Even if the current level of tax complexity were acceptable, a systematic approach to the subject should identify risks that could result in increases in unnecessary complexity. Risk management is an important part of management generally and should be equally so for taxation. The European Commission’s Risk Management Guide for Tax Administrations (2006, p. 13) described risk management as ‘taking deliberate action to improve the odds’ of good outcomes and reducing the odds of bad outcomes. The European Commission’s Guide also states:

Risk analysis also involves the why question: why is the taxpayer behaving in a particular fashion. This is important because it contributes to the assessment and the choice of the most efficient and effective form of treatment (p. 6).

It therefore enables an assessment to be made as to where further complications are likely to arise in the tax system.

### **3.7 Analyse behaviour**

An understanding of individual behaviour is important not only for the success of a tax system, of course, but also as an indication where unnecessary complexity might be impeding its effectiveness. It may also be used to identify situations where over simplified taxation has undesirable effects - as in the case of the UK’s disastrous community charge described above - and a better situation would be one that includes the appropriate degree of necessary complexity (James, 2012).

### **3.8 Consider the relationship between different policies**

Unnecessary complexity may well arise as a result of the relationship of the tax system with wider government economic and social policies. Where different policy objectives are not entirely consistent or compatible, there is the risk that complicated regulations might be introduced in an attempt to make them work together in practice. Such operational complexity might be avoided if there were greater co-ordination at policy level.

### **3.9 Develop strategies**

Strategies should be developed taking account of the different priorities attached to the factors described in the above stages. Simplification is unlikely to be the most

important aspect but it is important it is included in the development of strategy. It may then be possible to identify areas where complexity becomes unnecessary.

### **3.10 Plan and implement strategies included intended outcomes**

The importance of planning and implementing strategies in the best way should not be underestimated. Mintzberg (2004) stresses the importance of strategists having expertise in the area and that they should not simply pontificate at a high level of abstraction and leave it to others to implement the strategies. The importance of administration has already been mentioned and that it is not always best, or indeed fair, to leave it entirely to tax administrators, not least of course because aspects of the implementation may have implications for other areas of policy. It is also important that outcomes should be identified so that the operation of the strategy in practice may be monitored and modified if necessary. This is another role for tax complexity indexes as examined in section 4.

### **3.11 Monitor and evaluate the performance of the strategies against the plan**

One of the reasons why it is difficult to keep taxes relatively simple is the continuous pressure to add complexity for the reasons described above. The purpose of monitoring and evaluation is to observe how far the original strategy is being achieved and whether unnecessary complexity is growing. Tax reforms are not always monitored appropriately with respect to their intended aims and whether and in what ways they should be modified over time.

### **3.12 Tax salience**

A further contribution not suggested by James and Edwards (2008), is that of tax salience, and its interrelationship with tax complexity. Tax salience refers to the gap between a taxpayer's perception of a tax obligation and the amount that is actually owed (Mumford, 2015). Mumford looks at the work of the OTS with respect to confidence, fairness and salience, and the interaction between politics and the law. One important observation made by Mumford (2015) is that the OTS was established in the midst of the 2008 financial crisis, with the economic crisis encouraging more thought from the bureaucracy with respect to complexity and salience of tax policy.

Salience is closely related to the concept of complexity, with the notion that low tax salience by taxpayers generally may be related to greater levels of tax complexity. This higher degree of complexity may arise due to the pursuit of goals that benefit the tax authority, or through "worthwhile and necessary objectives in the interests of the taxpayer" (Mumford, 2015, p. 191). Mumford also observes:

[P]erhaps, taxpayers ask too much of tax legislation or place unreasonable demands upon the capacity of written legislation to communicate, effectively, what at first glance might appear to be simple concepts – for example, the tax terms of asset or gain (p. 191).

To date we would suggest the approaches taken to reducing tax complexity have not had a clear strategic focus, which may in part explain why initiatives to date have been largely unsuccessful in reducing (unnecessary) tax complexity. We now turn to examine a promising area of research into identifying and measuring tax complexity, namely the development of various forms of a tax complexity index.

#### **4. Complexity indices**

##### **4.1 Overview to the Office of Tax Simplification's Complexity Index development**

A recent contribution to the debate over measuring complexity in tax legislation is the Office of Tax Simplification's (OTS's) Complexity Index, the first version being released in 2012 (OTS, 2012).

The aim of the Complexity Index, according to the OTS, is:

- To provide an indication of which areas of tax legislation are considered to be particularly complex compared to others;
- To develop a tool that will help to prioritise the future work of the OTS; and
- In the long term, possibly to provide tax policy makers with a methodology to help avoid unnecessary complexity in future and to help prioritise areas for future tax simplification.

In constructing the Complexity Index, the OTS sought to identify seven key criteria, which it believes influence the complexity of tax legislation. Each of these criteria is scored out of 5, assigned a weighting, enabling a complexity index score out of 10. Then, this relative score can be used to rank all of the tax legislation by degree of complexity. The seven criteria used are:

- Legislative complexity
- HMRC guidance complexity
- Number of taxpayers impacted by the legislation
- Average ability of taxpayers involved in the area
- Avoidance risk
- Cost of compliance
- HMRC operating costs

The Complexity Index is intended to be applied to the complete UK tax system (including EU legislation that operates in the UK).

Sawyer (2013), in a preliminary review of the Complexity Index, suggests that the first release of the Complexity Index:

... was developed pragmatically and without consideration for its limited rigour. Furthermore, it has included what may be an arbitrary choice of criteria (for instance, the readability score index used could be any one of a number of measures, with no explanation for provided as to why the Gunning-Fog index was selected) (pp. 336-337, emphasis added).

The Complexity Index, as originally proposed, combined compliance costs and HMRC operating costs as a single measure. Sawyer (2013) suggests that the features of these two measures are such that they are not readily comparable, since compliance costs and administrative costs often reflect a conscious trade-off, and therefore need separate weights. Furthermore, the Complexity Index combines aspects of mathematical precision in some areas with ‘estimates’ or ‘feelings’ in others.

The release of the Complexity Index and invitation for feedback led to a number of responses, which in part led to further refinements in the first version of the Complexity Index. In February 2013, a second version of the index was released for comment (OTS, 2013). A major change in this version was the distinction drawn between underlying complexity and the impact of complexity. This revision both draws upon, and distinguishes in part, the work of Tran-Nam and Evans (2013/14). As defined by the OTS, “Underlying Complexity is the intrinsic complexity found in the structure of the tax which this consists of policy and legislative complexity” (OTS, 2013, p. 1).

Underlying Complexity would have six measures:

- The number of exemptions plus the number of reliefs
- The number of Finance Acts with changes to the area (since 2000)
- The Gunning-Fog readability index
- The number of pages of legislation
- Readability and availability of HMRC guidance
- Complexity of information requirements to make a return

Impact of Complexity was defined as:

... a combination of both the cost of compliance to an individual taxpayer and the aggregated cost of compliance for all taxpayers. *This is distinct from underlying complexity due to the role played by the impact of policy.* Although underlying complexity can have an effect on the impact of complexity (i.e. by structuring a tax measure in a way that applies to more customers), how the measure is implemented can affect overall complexity (OTS, 2013, p. 1, emphasis added).

This component of the Complexity Index would have four measures:

- Net average cost per taxpayer, incurred by taxpayers and HMRC
- Number of taxpayers

- Average ability of taxpayers
- Avoidance risk

The Complexity Index was recognised by the OTS to be a work in progress needing further methodological refinement. For instance, determination of the weightings to the various factors could be developed through use of the Delphi technique (Evans and Collier, 2012). The Delphi technique was developed by Dalkey and Helmer (1963) at the Rand Corporation in the 1950s. It is widely used and accepted method designed to achieve consensus of opinion of experts, within certain topic areas, on a significant issue. As a group communication process, through the debate and discussions on a specific issue, the Delphi technique seeks to enable goal setting, policy investigation, and/or predicting the occurrence of future events. As Tran-Nam and Evans (2014) observe, any application of the Delphi technique to tax complexity index proposals has yet to be undertaken or reported on.

James et al. (2015), observe in relation to the OTS's Complexity Index:

Whether the Complexity Index will prove effective remains unclear, as while it focuses on legislative complexity, it does not appear to be able to differentiate between business size and sector, both critical factors in the debate over complexity. As Evans and Tran-Nam (2014) observe, in order to "...develop a rigorous and acceptable tax system complexity index it is necessary to review both the tax complexity literature and the basic theory of index numbers." (pp. 296-7).

As noted in the previous section, Ulph (2015) views tax complexity within two broad concepts: design complexity, and operational complexity. Within these concepts Ulph (2015) seeks to breakdown the components of complexity further into fundamental complexity and unnecessary complexity, concepts which we will revisit later in the paper.

Commenting on how complexity may be measured, Ulph (2015) reviews the revised version of the OTS's Complexity Index, which he acknowledges remains a preliminary measure and work in progress. Ulph agrees with the OTS's approach to create two separate indices: one for intrinsic/underlying complexity and one for impact. However, Ulph (2015) would prefer to see design complexity and measurements of readability kept separate (with the readability index used by the OTS probably not capturing all of the compliance complexity factors). The number of pages is not seen by Ulph to be an appropriate measure of complexity, with the potential also for double counting with the capture of number of reliefs provided (which in turn would add additional pages). With respect to impact, the hypothetical 'average' ability of taxpayers is not seen as appropriate by Ulph. Furthermore, in Ulph's view, the OTS has not made a strong case for including HMRC's operating costs. In this regard Ulph (2015, pp. 52-53) observes that: "[i]f the Chancellor (Minister of Finance) decides to cut public expenditure and so reduces HMRC's operating costs, that does not mean that the tax system has become less complex."

Overall we agree with Ulph's (2015) observations concerning the OTS's Complexity Index.

#### 4.2 Other proposals for developing a complexity index

Tran-Nam and Evans (2014) is the most comprehensive attempt to date to develop a complexity index based on Australia's tax system. Tax complexity is a multidimensional concept without any universally accepted single overall measure of complexity. Tran-Nam and Evans (2014) suggest that this complexity index should be:

... interpreted as a summary indicator of the overall complexity of a tax system at a particular point in time, so a series of such an index can be used to monitor the changing level of tax system complexity of a country over time (pp. 342-3).

Tran-Nam and Evans (2014) review the sources and indicators of tax complexity, before reviewing basic index number theory. They conclude:

In summary, therefore, the *purpose of the index number must be clearly identified from the outset*, along with the *factors to be included* in the index, *suitably weighted*. In addition, a *fixed base period* needs to be established and *appropriate formulas, based upon the geometric mean*, devised. Finally, *usable estimates* that satisfy various axioms of integrity have to be derived (p. 355, emphasis added).

Tran-Nam and Evans (2014) support in principle the OTS's initiative of developing Complexity Index, but suggest a number of significant refinements are necessary. In taking the development process further, they recommend that, with respect to a complexity index:

... at this stage at least, we should *focus on an index that facilitates temporal comparisons of the overall level of tax complexity in a particular country*. It is further proposed *that two indices – one for business taxpayers and one for personal taxpayers – should be separately developed*. A mixture of the axiomatic and statistical approaches is considered to be the most suitable approach. ...

Finally, the paper proposes that the tax complexity index should be calculated as a weighted geometric mean of relative changes in identified complexity factors, which are in turn derived from careful empirical studies. It is acknowledged that the *successful construction of such indices depends critically on the difficult and challenging task of obtaining reliable estimates of complexity factors*. (pp. 367-8, emphasis added).

Borrego et al. (2015) develop three indices to measure *perceptions of complexity* based on empirical data gathered from a survey of tax professionals in Portugal. These indices are referred to as: the Legal Tax Complexity Index; Index of

Complexity of Preparation of Information and Record Keeping; and the Index of Complexity of Tax Forms. Using principal component analysis, the authors conclude that these three indices can be regrouped into a new index, the General Tax Complexity Index. The authors intend this index to be a check on the relative weights of the three partial indices. One key variable to emerge from the data gathered was expressed by the authors as a Tax Knowledge Index, which illustrates that as tax knowledge increased, the level of tax complexity decreased. Borrego et al. (2015) suggest that a longitudinal study is needed to gain further insights, as well as determine other exogenous factors that may influence perceptions of tax complexity.

Thus much work remains to be done to develop a reliable complexity index that can then be used as a basis for assessing the impact on complexity from changes to the policy and operations underlying the tax system of a particular country. Countries with complex tax systems, such as Canada (see Vaillancourt et al., 2015), NZ (Sawyer, 2013) and the US (Partlow, 2013), have yet to formally embark down a path similar to that taken by the UK in developing a detailed complexity index. However, as a preliminary step, while Canada does not currently have a similar regulatory body to the UK's OTS, Vaillancourt et al. (2015) provide empirical data on tax expenditures, tax legislation and tax guides as potential indicators of the growth in complexity in Canada. Partlow (2013) applies a legal perspective to identifying what he sees as the inherent causes of complexity in the US. We will discuss Partlow's contributions in the next subsection of this paper.

#### **4.2 Necessary complexity and unnecessary complexity**

Critical to our paper is how can one distinguish between necessary (or fundamental) complexity and unnecessary complexity, with the aim to focus reform efforts on reducing or eliminating the latter as far as is practical. Jones et al. (2014) and Whiting et al. (2015) state:

When the underlying complexity and impact of complexity have been calculated, it will be possible to know whether a tax is relatively complex or not, and why.

However, this is not enough to inform the OTS's work, *as often complexity in a tax measure can be because of real-world commercial complexity, which cannot be simplified.*

*Some taxes may in fact be necessarily complex.* This could be because they seek to tax complex financial transactions or commercial structures. This means that simplification of the tax is not possible without either:

- Changing the policy objective
- Finding a way to simplify the business situation or transaction
- Creating avoidance or non-compliance where additional complexity could have prevented it

Since the objective of the index is to provide the OTS with a measure to identify areas of tax which are appropriate for simplification, *being able to capture which taxes are necessarily complex and which are not would be helpful*. (pp. 13-14) (p. 249) (emphasis added).

We agree with the sentiments of the OTS regarding certain areas of complexity being inevitable as a result of complex world, but are disappointed with their last statement. The OTS's last comment suggests that its Complexity Index is designed to assist in identifying areas where taxes could be simplified but (unfortunately in our view), is not intended to identify those taxes (or components of taxes) which are necessarily complex and cannot be simplified (or if they are, could lead to unintended consequences elsewhere in the tax system). We also wish to emphasise that the work of Ulph (2013; 2015) is instructional for developing an index to measure policy objective complexity, which in turn may inform the analysis over areas of 'necessary complexity'.

Most recently, the OTS (2015) has offered some principles that it sees as helpful for avoiding complexity:

First: think through the policy to make sure the policy aims will be met by the tax measure being proposed: ...

Second: focus the measure carefully: ...

Third: design the measure to meet the aim: ...

Fourth: maintain the measure properly: ... (pp. 5-7).

Behind these broad statements are key steps that the OTS recommends should assist in aiming for a simpler tax system to the extent that the level of complexity in the wider world permits. The OTS has yet to publicly comment on how it is advancing its research in this area.

Partlow (2013) recognises the necessity for certain complexity in the US tax system as a result of the forces behind the system all lead to complexity (structural, technical and compliance complexity), along with the US having a 'complicated society'. Partlow's suggestion has a clear legalistic focus, namely that what is needed is the:

*... systematic elimination of inequities and unnecessary complexities in the individual [Internal Revenue Code] sections and in the application of the Code sections, taking into account how the provision interact with the rest of the Code (p. 327, emphasis added).*

Unfortunately Partlow's (2013) modest proposal to remove a degree of 'unnecessary complexity' appears unachievable in the current US political environment with the impasses on major tax reform between Congress and the Office of the President.

As noted earlier, Ulph (2015) distinguishes between fundamental complexity and unnecessary complexity. In his analysis, Ulph (2015) recognises that while a revenue authority will also require information from taxpayers, with the advantage of improvements in technology for example, this information may only need to be captured once or through other avenues. In reducing complexity Ulph (2015) makes the following observation:

So drawing all this discussion together, when one talks of reducing tax complexity there are a number of different things that could be meant:

i. *Retaining the existing tax design but delivering it in a less complex way – essentially by reducing operational complexity* by, for example, writing legislation/guidance in a form that is easier to understand or removing unnecessary informational complexity.

ii. *Retaining the given aims of the tax system but trying to achieve these in a less complex way – by reducing the unnecessary design complexity.* (p. 47, emphasis added).

Further discussion that is directed at achieving consensus over what path(s) should be taken to reduce (unnecessary) tax complexity would be a positive further step to responding to Ulph's observation. In this regard we would suggest that the Delphi technique should be applied to moving the discussion forward towards a consensus, following which the data gathering and analysis process can begin in earnest.

## 5. Conclusions

In the early work by the current authors, we reported on the experiences of 11 countries with respect to tax simplification initiatives. It was clear from analysing these reports that a considerable degree of complexity is inevitable given the different aims of taxation and the complex socioeconomic environments in which tax systems have to operate. The country reporters were asked to provide, as appropriate, relevant information on the following aspects:

- Simplification of tax systems
- Simplifying tax law
- Simplifying taxpayer communications
- Simplifying tax administration
- Longer term or more fundamental approaches to simplification

Almost all of the 11 contributions included significant examples of all five aspects, which are useful themes for further analysis, but their reports often varied considerably in the attention they gave to different issues and the actual experiences they examined. Of most relevance to this paper were their observations on the longer term and more fundamental approaches to simplification. From our analysis, it is

critical to explore the components of complexity and seek to identify which aspects are necessary or fundamental for the functioning of a successful tax system, and those which are unnecessary (and able to be reduced or eliminated).

In this paper we focussed on the relevant factors and issues involved in classifying unavoidable and unnecessary complexity, not only with respect to legislation, but also tax policy and administrative systems. In identifying unnecessary complexity, we have explored the strategic approach to identifying unnecessary complexity advanced by James and Edwards (2008), supplemented by endorsing Mumford's (2015) argument for examining the impact of tax salience in relation to tax complexity.

The most significant development to date in seeking to measure the quantum and impact of various aspects of tax complexity is the work of the OTS in developing and refining its Complexity Index. While the components of the OTS's Complexity Index has been critiqued by many (including Ulph, 2015), it has served as a catalyst for debate and a closer inspection of the underlying components of tax complexity, including fundamental complexity and unnecessary complexity. The work of Tran-Nam and Evans (2014) offers in our view the most thorough review of the complexity in developing a tax complexity index. Borrego et al (2015) offer the first contribution that has been developed from perceptions of tax professionals which were extracted from a large scale survey.

In terms of advancing the concepts of necessary and unnecessary complexity further, we would suggest that application of the Delphi technique may prove fruitful, as suggested earlier by Evans and Collier (2012). This recommendation is buttressed by the lack of any clear consensus from commentators in this area.

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